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THE

PSYCHOLOGICAL BULLETIN

THE FIELD OF PERSONALITY

BY GORDON W. ALLPORT AND PHILIP E. VERNON

Harvard University

It is no longer possible, as it was in 1921 (10), to present in a single review for the BULLETIN a fairly complete survey of the psychological studies in the field of personality. Interest in the subject is largely a post-war phenomenon, but though recent it has already reached astonishing proportions. Summaries are not lacking, but none is in itself complete, and few attempt a critical classification and interpretation. The present review is intended primarily for the orientation of the general psychological reader who wishes to acquaint himself with the methods and problems of contemporary research in personality. It may also help the investigator of some specific topic, who will find here a point of departure for the study of his particular problem. The references employed, though far from exhaustive, are representative, and probably include most of the important contributions of the past decade, with special emphasis upon recent years. The material will be presented under the following headings:

- I. General Treatises
- II. Definitions
- III. Types
- IV. Genetic Studies
- V. Experimental Methods
- VI. Consistency and Trait

There are several intentional omissions from this list. Popular writings on how to develop "personality," personality in business, and the like, need not concern us. Owing to their very lack of academic preconceptions, however, such works may occasionally be original and stimulating; Pitkin's recent book (220) is a good

example. The literature on character education is neglected here, since it does not, in the main, advance the scientific study of personality. The treasure-troves of fiction and biography are also unexploited.

The field of psychopathology receives only incidental treatment; multiple personality, for example, being wholly omitted. Only a representative fraction of the work on constitutional make-up or endocrinology could be included. The genetic field and the sociological approach are merely sampled in order to disclose their chief methods and theories. Literature dealing with particular traits, with genius or with intelligence, is only included when it bears on the general theory of personality. Such topics as leadership, emotionality, and humor deserve independent surveys; so far originality (71), social intelligence (268a), radicalism-conservatism (293), and extroversion-introversion (112) seem to be the only traits that are separately reviewed. Since 1925 the field of testing has been thoroughly surveyed annually by May and Hartshorne (193, 194, 196), so that, in general, only those investigations in measurement will be mentioned whose theoretical or methodological implications are of special importance.

Russian work receives little treatment here; the most accessible general statements of the Russian point of view are contained in the German volume by Bechtereiv (31) and in the English articles by Schniermann (243) and Kornilov (161). An attempt is made, however, to give to German writers the leading position which they deserve in this field.

Among previous bibliographies on personality Roback's (236) is the most inclusive; but since it was published in 1927, the majority of our titles fall outside it. Allport's early review (10) gives 71 references, and in 1927 (13) he attempted to clarify some of the problems of definition. Most of the 46 titles in the latter article are omitted. Manson's bibliography (185) up to 1926 includes mainly the practical and applied studies in personality. The Proceedings of the Second Colloquium (230) gives about 300 titles. Several other bibliographies which refer to more specialized topics will be cited later in the text.

I. GENERAL TREATISES

Under this heading are included books which, by their title or their contents, claim to consider the field of personality in a comprehensive manner. When one surveys the volumes, however, it is all

too evident that *Titel machen Bücher*. Bagby (25) gives too spacious a title to his little essay on tension and its reduction. Gordon (108) surveys the psychoanalytic schools and adds a theory which is a mixture of Gestalt and Emergence. Elliot's work (83) is a popular psychiatric psychology, and Valentine's (290) is an elementary text. It seems fair to omit many other works which, like Grove's (110) and Brown's (54) use an arresting title to refer to general problems that have little relation to the unique issues of personality. In a later book (55) Brown moves even further toward a philosophical and religious viewpoint.

The collection of studies, *Problems of Personality* (229), contains few essays of direct relevance. But Campbell's "On Recent Contributions to the Study of Personality" covers the developments in the psychiatric field; Jung's "Psychological Types" is a short presentation of his book of the same name, and Roback's "Character and Inhibition" is a curtailed version of his *Psychology of Character* (235). The latter book ranks foremost among the more solid treatises, and in scope and documentation exceeds anything so far published. It is the standard reference for the historical aspects of the subject, and contains a detailed theory of character it has already been reviewed at length in the BULLETIN (14). A comparable work, but less explicit and entirely undocumented, is that of Utitz (288), which he has recently supplemented by a characterological study of present day culture (289). Ziehen (326) regards characterology as a "confluent" science and therefore presents a large and interesting variety of material in his volume. From the French we have the work of Achille-Delmas and Boll (2), in which personality is regarded as an *ensemble* of innate (intellectual and affective-conative) and acquired functions. Their whole theory is ordered under the concepts of psychostatics and psychodynamics, and gives as formal and Comtean a doctrine as that of past generations of French writers, e.g., Malapert, Azam, Ribéry and Paulhan.

In Germany, where greater interest is shown in problems of personality, there are three figures whose influence has been so marked as to create definite schools of thought, Klages, W. Stern and Spranger. Certain tenets of these schools are reserved for subsequent discussion, but their general work is cited here.

Klages, known in this country for his graphology, has extended his work on expressive movement into a psychometaphysical system which is both imposing and difficult (151, 152, 153). He is not an academic psychologist, and ridicules what he calls "school psy-

chology" for its neglect of its most valuable data, namely, speech and graphic movement. Klages draws heavily upon Nietzsche and upon his own literary imagination for his unique categories for the classification of men, and for his treatment of will. Prinzhorn (228) follows Klages rather closely and applies his basic ideas to psychiatry.

Stern (264) has built upon more authentic psychological foundations a personalistic Aristotelian idealism. His work thus has both a philosophical and psychological aspect. The former he calls *Personalismus* and the latter *Personalistik* (267). His method is dialectical to an extreme degree, and in a formal fashion provides perhaps more adequate categories for the intricate manifestations of personality, especially of its goal-seeking aspects, than any other system. On the strictly psychological side he has shown the consequences of his views for tests of personality (266) and for applications in the law courts (268). Stern's chief point of resemblance to Klages consists in his untiring emphasis upon the vital unity of personality. Personalistic psychology has been briefly reviewed by Calkins (68) in the BULLETIN.

Spranger (261) agrees with the two preceding schools in regarding the methods of natural science as wholly inadequate to the complete study of personality. His chief contributions have been the notions that what a man wants in life, *i.e.*, his personal scale of values, distinguishes and characterizes his personality; that there are a limited number of these basic scales of values; that the cultural approach is necessary for their understanding; and that *knowledge* about personality is not the same as *understanding* of it in any single concrete case. Accounts of this school may be found in articles by E. Stern (263), Klüver (155, 159), G. Allport (11, 17, 18) and Wenzl (307).

Tumlitz, like Utitz, surveys the problems of characterology in general (287), while the books of Wahle (297), and Ewald (85) are concerned chiefly with their own theories of the innate temperamental foundations of personality. Hoffman (132, 133) gives a review of the work of Spranger, Müller-Freienfels, Weininger, Jung, Kretschmer, Klages, Apfelbach, Ewald, Kronfeld, Häberlin and others. Hoffman himself favors a biological-hereditary theory, and believes it possible to isolate the characterial elements in heredity. These and similar books on the constitutional bases of personality are reviewed by Bogen (42).

Kunkel (166, 167), like Stern, uses a dialectical method. His central concept is that of "limiting factors." We cannot study an

individual's personality directly, but we can ascertain with considerable exactness the limits within which his behavior varies.—It is not possible, for example, to establish patience as a trait, but we may find the limits to a man's patience. In actual practice, the studies on character education by Hartshorne and May (120, 121, 122) follow this principle and disclose its laboriousness.

II. DEFINITIONS

Since it is rare indeed to find one author who accepts the definitions of another, there seem to be virtually as many definitions of personality, character and temperament as there are writers on these subjects. Although at first glance the problem resembles chaos, yet the principal disagreements concern the point in a definition where the emphasis falls. There are fortunately a limited number of points of stress, so that it seems possible to distinguish certain standard usages or general types of definition. But first it is only fair to record that many psychologists declare that personality is indefinable. Burnham (63) writes, "What personality is, everybody knows; but nobody can tell." The same writer gives an interesting collection of definitions, and the general problem of definition is also considered by Gilliland (104). The best single collection of definitions is in the *Proceedings of the Second Colloquium* (230).

A. *Personality*. Standard etymological studies of *Persona* and its derivatives by Rheinfelder (233) and Trendelenburg (284) show that at least since the fourth century there has been a double, and in a sense antithetical meaning of the word. The mask, the assumed appearance, the visible outward manner; and the innermost moral life, the true self, the substance or *hypostasis*; both conceptions are equally entitled to the term "personality." As might be expected these two historical connotations play a part in the present confusion, although they are by no means solely responsible for it.

Superficially it would seem that the first of these meanings corresponds to the common psychological use of the term, and the second to the philosophical. (The concept of personality is fully as lively in contemporary philosophical thought as in psychological theory). Indeed C. C. J. Webb (302) considers this general usage of personality as the ego or self as standard for theological and philosophical writers since Boethius at the beginning of the sixth century. *Persona est naturae rationabilis individua substantia*. The separation between the inner and the outer aspects of the self is roughly observed in German, as Ehrlich (82) has shown, in the two words

Personalität and *Persönlichkeit*. By no means all German philosophers, however, abstain from the use of *Persönlichkeit*. Stern (267) distinguishes the abstract philosophical enquiry (*Personalismus*) from the more concrete psychological enquiry (*Personalistik*). In English unfortunately both the will and the words for this serviceable distinction are lacking; but Lloyd Morgan (203) wishes to contrast the comprehensive, socially conditioned *personality* with the inner, unique *individuality*, a view which is also discussed by Ritter (234).

Now psychological definitions are not interested in the "individual substance of rational nature," but concern themselves rather with specific and concrete manifestations of this abstract principle. Yet such definitions range in their point of emphasis from the most superficial outward aspects of behavior (the mask) to the inner psychological states that can be inferred from these expressions, e.g., sentiments, complexes, traits and integration. In general these opposed standpoints correspond to the behavioristic and the psychoanalytic approaches, respectively. An appropriate example of the former, outer, view, is May's (190, 191). He writes, "an individual's personality is not defined by the responses he makes to others, but rather by the responses others make to him as stimulus. In brief, personality is an individual's social stimulus value." What man really is is not here in question; the personality *is* its appearance as determined by its effect on others. The more effect (of whatever kind) the "more personality."

On the other hand Krudewig (165), who has made a thorough survey of the rôle of the concept of personality in modern theoretical psychology in Germany, finds that the outer man, the mask, is not an adequate expression of the psychological usage. And Brown (54) writes, "although the word itself, persona, suggests drama, even melodrama, pretence, hypocrisy and the like, nevertheless when we come to consider the ordinary use of language we find that people who are regarded as having personality are just the opposite of this. They are not the people who play a part." McDougall (179, 180) stresses the importance of regarding personality as a solidly constructed system of sentiments and not as the mere mask of a poseur, while MacCurdy (176) offers the following definition: "Personality is an integration of patterns (interests) which gives a peculiar individual trend to the behavior of the organism." Such definitions frankly attribute a psychological reality to personality; it *is* something and *does* something. While they approach the philosophical

standpoint, they are not so abstract. This same point of view is represented by J. Adams (3), "Personality is the ego looked at in a more concrete way. It has more content than the bare ego."

Definitions given by psychologists may therefore be placed in a continuous series from the most outer (biosocial) to the most inner (biophysical) conceptions. But it is serviceable likewise to order them under a classification which brings forward more than this one point of emphasis.

In the review of 1921 (10) it was found that many definitions were concerned only with the enumeration of the components of personality. These were called "rag-bag" definitions at the time, though "omnibus" is perhaps a more suitable term. To the (a) *omnibus* type of definition it is possible to add the following: (b) *integrative*, (c) *hierarchical*, (d) *adjustive*, and (e) *social*.

(a) *Omnibus definitions* generally contain the term "sum-total," and are too frequently encountered to need much illustration. A typical brief one is that of Valentine (290), "Personality is the sum-total of one's habit dispositions." Sometimes a definition of this type is less explicit and may be accompanied by a gesture of despair as is the case with Menninger (198): "Of course personality is used to describe almost everything from the attributes of the soul to those of a new talcum powder. As we shall use it, it means the individual as a whole, his height and weight and loves and hates and blood-pressure and reflexes; his smiles and hopes and bowed legs and enlarged tonsils. It means all that anyone is and all that he is trying to become."

Many recent authors of omnibus definitions seem to sense their inadequacy, and add a provision, however dim, for unity or integration. Baar (24) writes, "Personality is the sum-total of an individual's tendencies to reaction both native and acquired. Each tendency is a trait and the unity of a personality is due to the integrating function of the nervous system." Some prefer to the term "composite" (Brandenburg, 46), "aggregate" (Amsden, 20), or "ensemble" (Achille-Delmas and Boll, 2).

(b) *Integrative definitions* stress the organization within the personality. Warren's (298) is often quoted—"the entire organization of a human being at any stage of his development," including, "intellect, temperament, skill and morality." Typical, also, is Fisher's (88), "The expression of the integration of the sum-total of the individual's mental aspects." He adds that few, if any, of us ever reach the level of complete mental integration. The problem of

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the degrees of integration is further considered in Section IV of this review, and in the review of 1927 (13). According to Thomas (277) personality is dependent on the organization and relative dominance of four desires, namely: for new experiences, for intimate relations and contacts, for recognition and for security. Müller-Freienfels (204) emphasizes the progressive integration of the experience of the person. Smuts (257) considers personality as the latest and most developed Whole that has appeared in evolution, and stresses its unique, but often far from complete, integration.

(c) *Hierarchical definitions* are distinguishable by their notions of levels of organizations. The prototype for conceptions of this sort is to be found in James' classic treatment of the four levels of the Self. Almost the same idea is developed by Blondel (40) and by Martin (188). Bridges (49, 50) presents a thoroughgoing hierarchical theory, finding a similar type of organization and development in the cognitive, affective and conative dimensions of personality. Heider (127) draws his four levels of personality from the different *Schichten* of consciousness. McDougall's theory of personality, like Shand's, is clearly hierarchical (179, 180, 181); dominating and harmonizing all the lower integrations is the "self-regarding sentiment." Though Prince (226) also emphasizes the disunities in personality, yet his view is similar to McDougall's, and Child's (69) biological theory is explicitly hierarchical. Watson's definition of personality is not hierarchical, but his treatment of the conditioned reflex and habit systems definitely is (301).

(d) Emphasis on *adjustment* is found in biological and behavioristic definitions, either combined with an omnibus conception as in Watson's (301) "sum-total of habit systems," or with an integrative conception in Leary's (168) "whole-organism-in-action." Following Watson's earlier lead, Rexroad (232) defines personality, "as the balance between socially approved and disapproved traits." While this obviously refers to adjustment, it ushers in, at the same time, the highly confusing and totally irrelevant criterion of social approval, which belongs, if anywhere, to the concept of character (*vide infra*). Another definition which emphasizes habits or manners of adjustment is Bowden's (45).

(e) *Social definitions* are likely to come from sociologists and to refer to the status of an individual in society. Eubank (84) wishes to consider personality as the "ultimate granule of the human group," "the true societary unit," and Marcuse (186) writes, "Personality is the convergence of all essential cultural tendencies in one

mind. The more culture one has, the harder it is to be a single personality." May's view of personality as nothing but the social aspects of the individual has already been cited; related to it, but not so extreme in implication is F. H. Allport's (9) treatment of personality as result and cause of social behavior.

Another variety of social definition stresses the *distinctiveness* of the person. Thus Ritter (234) writes, "An individual's personality consists in those attributes which differentiate it from other individuals, especially of its own kind"; and Yoakum (319) calls it, "that combination of behavior forms in the individual . . . which distinguish that individual from others of a group." "Idiocyncrasy" is suggested by Gillespie (103) as a substitute for the hackneyed and ambiguous term personality; it includes individual differences and their hierarchical organization at various levels. Another definition emphasizing the integrative and distinctive is Schoen's (244), "Personality is the organized system, the functioning whole or unity, of habits, dispositions and sentiments that mark off any one member of a group as being different from any other member of the same group. If all the members of any one social group acted alike, thought alike and felt alike, personality would not exist." Similar is Wheeler's statement (310), "It is that particular pattern or balance of organized reactions which sets one individual off from another." Young's definition (325) seems to stress both integration and social status, "the sum-total of images, ideas, attitudes and habits of the individual organized in terms of his social participation."

Closely related in thought is Woodworth's "adverbial" conception (317), "Personality refers not to any particular sort of activity, such as talking, remembering, thinking or loving, but an individual can reveal his personality in the way he does any of these things." This notion is very suggestive in that it puts the emphasis squarely upon the problem of *style*, a concept almost completely neglected by psychologists. The manner of acting is considered to be the essential feature of personality likewise by Schlink (242) who distinguishes the easily altered, progressively changing *personality* from the more stable, resistant, normally unaltered *Ego*. This distinction obviously marks off the psychological problem from the more philosophical.

B. Character. The term "character," as originally employed by Theophrastus, clearly possessed much of the same adverbial significance as Woodworth ascribes to "personality"; and there is no historical reason why it should not be used interchangeably with personality. Indeed every meaning that has been assigned to one of

these words has, probably by some writer, been assigned to the other. Thus it might easily be argued that they are in every respect equivalent.

In modern psychological usage, however, there can be detected at least two main lines of divergence, both of which give meanings to "character" that are rarely associated with "personality." The first of these tendencies is to attribute an ethical or moral significance to the term, to consider character as personality evaluated according to some social or ethical norm. J. B. Watson earlier made this proposal, but failed to follow its consequences, which would call for the rigid exclusion of all normative considerations from the sphere of personality proper. His treatment of personality has been fraught with evaluation (cf. "reaction assets and liabilities"), a fact which means that, by his own distinction, he has written more of character than of personality. A clear statement of the distinction is given by J. Adams (3), "Character is more of an estimate of the individual. It should indicate moral evaluation." Admittedly there is a very strong colloquial tendency for personality to be evaluated as "force" or "charm" and the like (a tendency which is taken into account in May's *social stimulus value* theory). And the contemporary movement for character education continually faces the problem of standards. But psychological research in personality proper should never be troubled by these confusions. Just as this trend seems to be enjoying a desirable growth, it is annoying to find the exact opposite usage by Schoen (244), "Individuality produces self, self gives rise to character, and character is evaluated as personality."

The other main tendency in the use of the term "character" is to apply it to some special phase of personality, usually the conative. Filter (87), McDougall (181), Taylor (274), and Roback are writers who illustrate this standpoint. Taylor calls it "the degree of ethically effective organization of all the forces of the individual." Others consider character as a kind of stable background to personality. Clark (70) believes that an individual has as many different personalities as there are different social groups with which he comes in contact; character is then identified with the degree of organization and integration of these personalities. Similarly Thomson (279) writes, "Character furnishes the stabilizing quality of personality." Such concepts possibly derive from Dewey's theory of character as the degree of "interpenetration of habits" (77).

Roback (235) defines character as "an enduring psychophysical disposition to inhibit impulses in accordance with a regulative prin-

ciple." Here the "regulative principle" is non-psychological, but he still considers character as containing clearly marked psychological processes, and therefore as a natural datum for psychology. The view of the present writers is that, in so far as Roback and others who have a similar approach to character are dealing with drive, inhibition, perseveration, integration, or with other genuinely psychological phenomena, these can be adequately expressed as manifestations of *personality*. The word *character* might then be regarded as a purely evaluative concept and deliberately abandoned as a psychological concept. Nor will any good come from promiscuously using character as equivalent to personality.

C. *Temperament*. There is less ambiguity in the concept of temperament, though it is occasionally applied by some writers to virtually the whole field of personality. Thus Burt (65) considers temperament as equivalent to the affective-conative aspects of the total individual, whether inborn or acquired, general or specific. Bartlett (29) defines it as a group of predisposing tendencies, characterizing the individual, independent of training, arising early in life and remarkably persistent from generation to generation. He thinks that class distinctions in society may ultimately rest upon this inherited and stable foundation. Both individual differences in instincts, endocrine factors, autonomic tensions, and psychopathological tendencies are included by Bridges (48) in an eclectic concept, while Porteus and Babcock (224) also interpret temperament in a broad sense.

The great majority of writers seem to confine temperament to innate factors but place their emphasis upon one of three functions: (a) the emotional, (b) the physiological, or (c) the kinetic.

(a) A consistent treatment, stressing the first of these, is given by F. H. Allport (9), who considers temperament to be the characteristic phenomena of an individual's emotional life, including his susceptibility to emotional stimuli, the customary strength of his emotional responses, the quality of his prevailing mood and peculiarities of fluctuation and intensity in mood. Presumably, at least the foundations of such qualities are considered as innate.

(b) That temperament is closely connected with vital organs and functions is evident in a great deal of research and theory. Rayner (231), after giving a useful historical survey, considers temperament almost wholly from the physiological standpoint. Piéron (219) would seem to find its basis in the thalamus and palaeoencephalon. McDougall (179, 182) separates off from what most writers would call temperament both *disposition* (inborn, conative-

affective tendencies) and *temper* (persistency, urgency, etc., of these "drives"). *Temperament* is then confined to the more strictly vegetative factors, "the influence, direct or indirect, of bodily metabolism (more especially of the endocrine secretions) upon the psychophysical processes of the nervous system." From this point of view Kempf's well-known work (149) must be said to deal with temperament rather than with personality. The same applies to Berman (34), whose speculative thesis has been revised and expanded (35). More moderate but still speculative glandular theories are presented by Cobb (72). Berman as well as Kempf receives the support of Williams (313) who also identifies Freud's unconscious wishes with Kempf's autonomic tensions.

Perhaps the best survey of the endocrinological field is given by Lipschütz (174). Galloway (96) has reviewed and criticized Berman, finding his doctrine a resuscitation of humors, "a metabolic phrenology." There is, he believes, no evidence that the glands completely dominate the central nervous system, nor that a chemical theory is more valid than a cerebral. A parallelistic standpoint is defended by Lewis (173), who considers that the chemical, the physical and the psychological are equally important aspects, and that all three approaches should be combined. Peters (218) attempts to show that temperament and intelligence are distinct but interactive factors.

(c) The kinetic basis of temperament has been stressed by Myerson (206) and Downey (79). More recently Bloor (41) surveys historical and contemporary theories, concluding that, "if there is in human behaviour an irreducible factor which may be known as temperament . . . its manifestations must be looked for along the lines of rapidity of natural responses and in duration of the disturbances produced. That is to say it is essentially a time factor."

Further discussion of such theories of temperament falls under the heading of *types*.

III. TYPES

From totally unrelated points of view and in the service of a variety of ends, innumerable *Typenlehre* have arisen. In its own way each doctrine seems to have some plausibility when taken in isolation and with respect to the special interest of the author. But since these authors seldom examine the meaning of the concept of type in general, nor the exact nature of their own usage in particular, each shows peculiar weaknesses when viewed logically or compared

with other doctrines. The clarification of the concept of types and the establishment of its legitimate place would be an invaluable service to the scientific study of personality.

A satisfactory review of type doctrines current in 1923 is given by Selz (248). He distinguishes between views which offer types of isolated functions (attention, memory, etc.) and those which pretend to classify the whole personality; these he further orders under the headings of structural, empirical and correlational types. Two years later Klüver (156) made a similar survey, focussing attention upon the work of representative writers rather than upon classification. Grundland (111) has reviewed several of the experimental studies of types, Oeser (211) covers many of the contemporary European schools, and Hoffman's survey (132) is fairly complete. For the older doctrines Roback's book (235) is invaluable.

The following classification of type doctrines contains all the main groups that can be detected in the field, though, as is only to be expected, several authors overlap into two or more divisions. Thus Kretschmer includes so much in his conception that he obviously belongs under both the *constitutional* and the *pathological* categories, and Achille-Delmas and Boll fall within the *deductive* and the *pathological*.

A. *A priori and descriptive*: (1) Literary, (2) Deductive.

B. *Biotypes*: (3) Energic, (4) Constitutional, (5) Pathological, (6) Eidetic.

C. (7) *Statistical*.

D. *Qualitative*: (8) Gestalt, (9) Ideal.

A. (1) *Literary*. Throughout the history of literature from Theophrastus to the *New Yorker*, the writing of type-sketches has been popular. By means of arbitrary selection or *exaggeration à propos*, the writer draws an organized and *typical* picture. In general it seems possible to distinguish two principal methods in this field of "psychoagnosis."

(a) Theophrastus and his strict imitators pick out a dominant or crucial trait, and show how this central quality colors the everyday behavior of the individual; the result is the securing of a high degree of universality. The Chatterer among the ancient Greeks is the chatterer of to-day. The type is here the *dominant trait*.

(b) Other writers, following La Bruyère, modify this method in the direction of an actual portrait. More than one trait is depicted, but the skill of the author makes of the plurality an extremely harmonious picture or cluster of traits in which all that is distinctly

individual is deliberately eliminated. The patterns arrived at in these portraits are universal enough to serve as prototypes for whole classes of people. Giton, Phaedon and Theodacte are in our circle as they were in La Bruyère's.

(2) *Deductive.* The scientific standards of to-day do not permit exclusively deductive schemes. It would be impossible for anyone, for example, to secure a hearing with an entirely *a priori* construction, even though it were as grandiose as Fourier's. Up to the present century, however, this method was an accepted one for establishing types. A glance at the tortured variations which the four temperaments suffered at the hands of German and French writers of the nineteenth century will sufficiently convince one. This manner of logical approach can still be detected in the systems of Ewald (85) and Achille-Delmas and Boll (2) and others who attempt to force observation into categories which have only a vague empirical foundation. The neater the formulae for such types, the more danger there is of "discovering" individuals who possess the correct proportions of each basic ingredient.

B. *Biotypes.* To laymen and to psychologists the word type immediately suggests extrovert-introvert. Practically all of the biotypes can be reduced only too easily to variations on this theme. Hence it would be as well to consider Jung first.

(3) *Energetic.* Psychologies which include the notion of a dynamic flow of energy readily invent types to correspond to the channels of flow of such energy. Thus Bain's "steam boiler" produced his cognitive, conative and affective types of "character," and Kempf's energetic stream followed characteristic paths in different people, nutritional, sexual or sublimational. Jung's conception is, of course, based on "outward or inward turning of the libido."

Guilford and Braly (112) have recently reviewed for the BULLETIN most of the literature on extroversion-introversion, and few of their references will be repeated here. In general it may be said that there are two marked tendencies in the current treatment of Jung's types. The first is to reduce the concept to a trait, normally distributed, making the large middle region of ambiverts more prominent. Considerable variation may be discovered in the definition of such a trait, but it has clearly come to stay, although Downey (80) points out that Jung considered extroversion and introversion as attitudes or mechanisms rather than as characteristic types of behavior, and Hendrick (128) objects to the psychologist's interpre-

tation of them as a static trait rather than as "a highly variable and complex mechanism."

The second tendency is to provide alternative renderings to Jung's dichotomy, either on a kinetic or an emotional basis. Guilford and Braly show that the division was by no means original with Jung, but has antecedent variations, notably in the primary and secondary functions of Gross. Heymans and Wiersma are among the chief proponents of these two functions; in addition they classify temperaments according to the criteria of activity and emotionality. In two recent papers (311, 312) Wiersma finds these fundamental distinctions in racial and occupational groups as well as underlying many psychological peculiarities of individuals. By means of somewhat crude though painstaking statistical treatment of ratings and questionnaires he seeks to connect huge numbers of traits (domineeringness, vanity, scrupulousness, etc.) into clusters around the particular types. Downey (80) identifies certain of her "rapid fire" or fluidic (primary function) will-temperament traits with extroversion and slow-cautious traits with introversion. An essentially similar distinction derived from industrial research is suggested by Mira (200) according to the degree of what he calls "the viscosity of attention." And Spearman (258) implies that his universal factor of perseveration is equivalent to introversion.

Interpretations of a more socio-emotional variety may be illustrated by Lundholm's (175) establishment of altrocentric and egocentric tendencies as basic, an attempt similar to Decroly's (76). Perhaps the commonest assumption is that the extremes of extroversion-introversion correspond to syntonic and schizophrenic psychoses, to use Bleuler's terms (39). Mauerhofer's (189) syntonic (social minded) and idiotonic (self minded) or Wertheimer and Hesketh's (308) syntropic and idiotropic are alternatives. The so-called color (Fb) and kinaesthetic (B) responses to Rorschach's (238, 239) inkblots give rise to his "extratensive" and "introversive" types.

Pavlov (214) notes an "excitatory" and an "inhibitory" type of temperament in dogs, *i.e.*, those liable to disturbances of a cycloid or neurasthenic, and of a schizophrenic or hysterical nature, respectively. In between is a *central*, stable group which may be subdivided into the quiet and lively types. Thus he develops the usual dichotomy into a fourfold classification whose close connection with the humors he does not fail to stress: excitatory-choleric; inhibitory-melancholic; quiet-phlegmatic; lively-sanguine.

By following through Kempf's tension theory to adult social life, Frank (94) derives two types of adjustment; the "status" type of individual is one who, unable to solve the tensions of his early personal relations, is always intent on his own position with respect to society and the external world; the "objective" individual is one to whom personal and environmental relations come easily. Frank considers these as corresponding to introvert-extrovert, but more fundamental, physiologically and psychologically.

(4) *Constitutional.* Work on the physical make-up of individuals with its psychological counterpart is the most popular of all approaches to the problem of types at the present time, ranging from Berman's simple glandular types to Kretschmer's complex biopsychotic ones. Serviceable general reviews of the literature are given by Boven (43, 44), Burnham (63), Healy (123), Hoffman (132), Klüver (156), Podach (222), and Polen (223). This last reference contains a complete bibliography on Kretschmer's theory up to 1928.

Kretschmer's work (163) has been pivotal and has received wide acclaim from psychiatrists. In the main it has been speculatively modified and elaborated rather than adversely criticized, and his chief thesis, the correspondence between physique and types of psychosis, has been roughly confirmed, for example by Wertheimer and Hesketh (308) and Krasusky (162) who worked with children. The pyknic-cycloid correlation is found to be better than the asthenic-schizoid by Polen (223). Adler and Mohr (6) together with most American experimental psychologists are rather more critical, seeing valid distinctions between the types only for extreme groups. Miller (199) would relate a number of these doctrines of constitutional types to a simple neurologico-endocrine dichotomy, the sympathetico-vagotonic. Burt (64) shows that herbivorous-carnivorous, hypothyroid-hyperthyroid, objective-subjective, vitalmental, nutritional-nervous, extrovert-introvert, sthenic-asthenic, etc., are essentially the same. He posits a general factor of emotionality, superimposed on which are active and passive group factors to correspond to these types. One of the two divisions, the sthenics, is considered by Fowler (93). Innate masculinity and femininity characterize the theory of Sumner (269) in much the same way as in Weininger's well-known doctrine. Kroh (164) seems to have deserted the field of eidetic types and to be developing a typology more in line with Kretschmer's.

More strictly morphological work, relating features of physical

build to temperament and intelligence derives from the Italian schools, Viola, Pende and De Giovanni (*cf.* 235, 236). Both Gurewitsch (113) and Yizlin (318) classify pyknics and asthenics on the basis of fluent or awkward, harmonious or angular movements and handwriting. In this country, in addition to the theoretical discussions, there has been much experimental investigation giving positive though small correlations between personality tendencies and constitutional factors. Since they are well summarized by Guilford and Braly, we need not repeat here the results of the direct chemical attacks of Rich and of Furokawa, nor McDougall's autacoid theory of extroversion, nor Hunt's derivation of temperamental types from the degree of excitability and motility. Sheldon (252) finds some tendency for all-round bigness of frame to go with aggressiveness (ratings), but Bender (33) discovers no significant anatomical counterpart of ascendancy. More than a dozen investigations of the correlation between asthenic-pyknic build and intelligence are summarized by Mohr and Gundlach (201); of these results, Sheldon's (251) +.136 seems to be the safest (the asthenic being slightly more intelligent than the pyknic). With emotionality the evidence is conflicting, but with sociability (ratings) Sheldon finds a correlation of +.217, with extroversion (several tests) Vernon (292) obtains +.28.

Another popular variety of constitutional theory is the doctrine of racial types. Three very different approaches may be illustrated by the works of Porteus and Babcock (224), McDougall (178), and Madariaga (184).

(5) *Pathological.* As already mentioned, both Jung's and Kretschmer's views are largely based on psychopathological data, so that their extension to mankind in general requires the somewhat insecure assumption that the normal is always continuous with the abnormal. Many psychiatrists, however, enjoy ordering people, whether normal or institutional cases, under the genera of mental disease. Rosanoff's scheme (240) was an early one, while Bleuler's (39) sytonic (cycloid) and schizophrenic mechanisms have attained a considerable vogue. A large part of Menninger's recent popular book (198) is devoted to this task. He parallels the normal and the clinical types as follows: organically crippled (organic disease); stupid (hypophrenic); lonely (isolation); queer (schizoid); moody (cycloid); frustrated (neurotic); perverse (antisocial, psychopathic personality). Healy, Clarke and Kasanin (124) have made an empirical study of the types of personalities encountered in

abnormal children, establishing the unstable egocentric, the constitutionally inferior, the idiosyncratic and the psychotoid groups. A definite personality type among tuberculous women is suggested by the investigation of Mühl (205), while Notkin (209) proves that the so-called epileptic personality type in general occurs only among those who suffer from the disease in their earliest childhood.

(6) *Eidetic*. Related to the constitutional types are the biotypes of Jaensch and his co-workers (138-141). This fertile field has been reviewed by Klüver (158) and by Oeser (211), so that little will be added here. It is important to distinguish, however, between the problems of eidetic imagery and those of eidetic types; the validity of the prolific research concerning the former phenomena would not be in the least affected by scepticism regarding the enormous superstructure of types erected by the Marburg school. This view has been developed elsewhere by Allport (12).

Among the numerous types suggested by Jaensch and his associates are the following: the B-type, whose eidetic images are voluntary and controlled and whose physical make-up seems to suggest Basedow's disease; the T-type, whose images are uncontrollable and insistent, whose physical symptoms are analogous to tetany, with calcium as a specific agent for the reduction of the imagery. The mental life and personality of these types are affected greatly by their physical and imaginal peculiarities. There are also the BT-type and the TB-type, a TE-type (tetanoid-epileptoid) and BH-type (Basedow-hysterical). There is the Unitary type whose after-images, memory images and eidetic images are indistinguishable; an Integrated type, whose general eidetic tendencies are strong and whose mental processes interpenetrate, and the opposite Disintegrated type. There is the Synaesthetic type, given to symbolic thinking, and variations on all the above. One cries for a truce to types!

The work of other investigators on objective and subjective reading, perceptual and imaginal types, is too manifold to be considered here, although definite connections with personality as a whole are usually implied. Rorschach's synthetic-analytic (G-D) responses (238), Apfelbach's (22) masochistic-sadistic and similar subjective-objective dichotomies, possibly originated by Binet, should be mentioned. In general these do not correspond so well to Jung's extrovert-introvert attitudes as to his feeling and thinking functions. They receive their greatest elaboration at the hands of Hinkle (131), who definitely superimposes subjective-objective across the usual dichotomy.

C. (7) *Statistical.* Most of the type doctrines so far considered meet their Waterloo when they encounter the normal distribution. Since significant multimodality seldom occurs, there are only two ways in which the type concept can be treated by statistics.

First the type may be reduced to a unidimensional trait, with a frank acknowledgment that the majority of cases fall in the middle ground and only a few at the extremes. Extroversion-introversion has already been quite thoroughly absorbed into the bell-shaped curve. Or, to take another illustration, Baxter (30), attempting to differentiate temperaments on the basis of reactions to "speed" and "strength" tests, found some evidence of normally distributed general factors, but no bimodality.

An interesting variation of the statistical type is advanced by Giese (102); he believes that the great number of people in the average range of all distributions themselves constitute a type, and plans an elaborate research to establish the characteristics of the *Durchschnittsmensch* (D-typus), the 30 per cent to 70 per cent man, in respect to his habits of work, standards of living, mental capacity and personal characteristics.

Secondly, the two extremes of some quantitative variable may be used as a starting point, or two sociologically differentiated groups may be taken (e.g., delinquents and normals, salesmen and mechanics, etc.). A large number of characteristics are then examined, seeking the traits that are constant and distinctive for each group. If a number of tests or other criteria agree in differentiating one group from the other (according to some such statistical method as the probable error of the difference), we attain, perhaps, the most valid type concept of any. This method is frequently used (e.g., 16, 45, 67, 92, 95, 129, 169, 201, 202, 205, 207, 212, 213, 224, 246, 294, 311).

D. *Qualitative Types.* The two remaining categories of types are quite immune to statistics, being unaffected by the existence of mixtures or "middle cases."

(8) *Gestalt.* Lewin (171, 172), whose views are summarized in English by J. F. Brown (53), has made a bold attack upon the assumption that the statistical Gaussian curve deals adequately with the concept of types. His chief interest is in showing that neither regularity nor probability have anything whatever to do with *law*. Incidental to this principal argument appears the following unique conception of types. Types are natural happenings, and the fact of their existence has no relation to their frequency. Iron and gold are equally basic types, although the former is more common than the

latter. In the psychical world it is very difficult to isolate a type, for it remains enveloped in numerous *Restfaktoren*. In personality, for example, there may be ultimate types of will or activity that can only with great difficulty be discovered owing to the overlapping determinants of different kinds. Now on a distribution curve these elemental type happenings may be lost sight of. Take a simple example of sorting beans. A series is found to vary in dimension or weight between 10 and 40 units, and the distribution curve seems to be normal. As a matter of fact the assortment contains four *types* of beans, those which cluster between 10 and 19, those between 17 and 28, etc. In such a case, although the resulting curve is normal to the eye, the incidental variations in the types have obscured the truth, making a specious single variable appear in place of the four basic types. According to Lewin, then, a type should be considered as a qualitative event, however difficult it may be to isolate it. Statistical methods may actually obscure its existence.]

Lewin further distinguishes two sorts of types, indeed two aspects of all psychological data. The first is the *genotypical* (*konditional-genetisch*), and it is this which he identifies with *law*. The other is *phenotypical*, serviceable only for the description of phenomena.] In brief his argument runs that the same genetic sequence may give rise to diverse phenotypic sequences or configurations. In strict logic this proposition seems to violate the law of uniform causation, but it follows from a consideration of the impossibility of tracing the millions of determinants in the process of forming personality. For example you and I may both be introverted (a phenotypical fact), but I may be so owing to the effect of a sensitive temperament, you owing to bitter experience (two different genotypes); or under conditions of embarrassment (same genotype), I may become overbearing and you merely shy (different phenotypes). Something of the same distinction seems to be in the minds of Kronfeld and Klüver (154) in their division of types into "psychological" and "sociological." The former would be genotypes, the latter mere biosocial phenotypes.

A third important development is Lewin's conception of types of different orders. A type may be extensive or may be elemental. Smaller types exist within larger types; and one cannot generalize from one level to another; each must be observed with regard to its own properties, and each, if it is a genotype, is a "law."] From this point of view it may be possible that we shall find types and sub-types in personality.

A final consequence in this view is the retreat in importance of the stimulus. The system or type upon which the stimulus acts will be the decisive feature in the reaction. Hence type becomes a sphere of determination, and such a concept, as we shall see later in our discussion of traits, is of great importance in the theory of personality.

(9) Ideal. A conception of type, totally different from all the others, which is philosophical in its origins, but exceedingly influential in contemporary German psychology, is that of the *Geisteswissenschaften*. It seems to have arisen from Dilthey's proposal that there are three fundamental ways of looking at life, the *Anschaunungen* of the subjective idealist, the objective idealist and the naturalist. Dilthey was interested in both individuality and type. He was impressed, however, with the fact that certain features are commonly connected in man's mental outlook, so that the presence of one feature enables us to predict the presence of another. Whatever connections occur again and again he labels types. Combining this basic notion with Rickert's emphasis upon values, Spranger (261)⁴⁶ decided upon six fundamental value-directions, each constituting a typical *Lebensform*: the economic, the theoretical, aesthetic, religious, social, and political. It is doubtful whether the author of any type-doctrine has thought out his position and defended his types as rigorously as Spranger.

The argument for the ideal type is well given by Klüver (157) and is further illustrated in Jasper's work (142). The latter writer does not use his ideal types as rigidly as Spranger. He distinguishes the sensuo-spatial (including the mechanistic, technical, historical, mythical), the psychic-cultural, and the metaphysical views of the world. It is important to understand that ideal types are not empirically derived. In spite of the title of the English translation of Spranger's book, they are not actually "types of men." They are rather "spheres of meaning," of which men partake in different degrees. Spranger has written primarily a *Wertlehre*; in his somewhat Platonic universe he finds this six-fold hierarchy of values. Men as *Träger* of these values necessarily manifest different personalities according to the proportions of the values which they bear. A purely theoretical or aesthetic man is merely a convenient, though improbable abstraction. Still, when these ideal values are reduced to the psychological realm, and applied to concrete personalities, the result is extraordinarily suggestive. E. Stern (263) has shown how this point of view sheds entirely new light upon personality, "In

what a man sees value, especially in what he sees the highest value of his life, that value in fact, which makes life important to him, that is what we must know, if we are to be capable of understanding his personality."

Although Spranger is aware of the aid which these ideal patterns give in the practical understanding of human nature, he refuses to take a genetic point of view toward the values themselves. Even in his book on adolescence (262) he persists in regarding the types as existing as ultimate forms of entelechy rather than as genetically conditioned interests or drives. Roback (235) suggests a genetic foundation for these types, assigning one or more of McDougall's instincts to each. The environmentalist could, no doubt, make a similar reformulation in terms of conditioning and the laws of learning.

Conclusions. It does not seem possible to discover any common denominator underlying all these conceptions of type other than the obvious fact that in whatever sense the concept is applied it always denotes groups of individuals who are in some way similar with respect to one or more essential characteristics. The dissimilarities between the concepts are more enlightening, however, than is this very general common characteristic. The most thoroughly examined conceptions of type seem to come from the statisticians, from the authors of the ideal types, and from Gestalt psychology. The inadequacy of most of the other doctrines may perhaps be clarified if we ask ourselves why it is that the enormous success of Jung's dichotomy in capturing the imagination of psychologists and laymen is only equalled by the failure of his four functions to be accepted with similar acclaim (*i.e.*, thinking, feeling, sensation and intuition). Is it that the original dichotomy is so much more valid than his sub-types? Probably not, for intrinsically the direction of flow of the libido is a more fantastic concept than are the four "functions." Possibly these functions are too "deductive" for general acceptance, but the phenomenon seems rather to rest on less rational foundations. Most authors who are interested in some special aspect of human nature express their interest in the convenient phraseology of types, and never consider the broader problem of their particular use of the concept. This method serves an immediate purpose, and is in this sense pragmatic; in so far as it leads others to criticize or confirm the doctrine it is also heuristic. But mental inertia seems to be at the root of most of the type doctrines. A dichotomy is much more readily grasped, understood, and applied than the permutations of

several functions. Dichotomies always have been popular, they facilitate intercourse and are effortless for our comprehension; witness Appolonian-Dionysiac, subjective-objective, toughminded-tenderminded, sensory-motor, primary function-secondary function, masculine-feminine, pyknic-asthenic, jigger-goon, extrovert-introvert. These simplifications are in part the product of lazy thinking and in part a token of desperation among lecturers. But progress will be made in proportion to the substitution of more adequate conceptions for these clichés. In this sense the type doctrines can be considered merely as propaedeutic to more adequate formulations.

IV. GENETIC STUDIES *E. a. int.*

The development and the social behavior of children naturally have a considerable bearing upon the formation of personality. Only a few illustrative references will be given here, since there are available several useful reviews of the literature by Shuttleworth (255), Baldwin (27), W. I. and D. S. Thomas (278), and H. E. and J. C. Jones (145). Probably the best cross-section of the leading genetic investigations and theories, as carried on all over the world, is to be found in the Proceedings of the First International Congress of Mental Hygiene.

A. Methodology. (1) *Observational Studies.* One of the most marked advances in this field consists in the development of the controlled observation of young children. Important techniques and results are reported by C. Bühler, Hetzer and Tudor-Hart (56), Bühler (58), Rugg, Krueger and Sondergaard (241), Pratt, Nelson and Sun (225), Zoepffel (327), Goodenough (106), and the Shermans (253). Cf. also Section V.

(2) *Case Studies.* No detailed mention need be made of the hundreds of descriptive studies appearing in psychiatric, sociological and popular journals, but the general trend is important. Young's summary of methods of investigation (322) includes a useful account of the historicogenetic, sociological and psychoanalytic approaches. Fearing (86) has reviewed psychological and psychoanalytic studies of historical personalities. The case-study method is also considered by Burgess (61).

In certain branches of this work there is a considerable tendency towards superficiality and psychologism, for example in biography such as Herzberg's study of great philosophers (130). Like so many "psychobiographers" he assumes that great thoughts "naturally" flow from organic inferiority or economic incompetence. A better

rounded approach to the personalities of productive people is offered by Plaut (221), whose book contains, besides theory, short autobiographies of many creative persons. One might also mention especially Stern's analysis of an adolescent's diary (265), and Sell's (247) exhaustive study of a twelve-year-old boy, in which he employed nearly one hundred psychological tests. An autobiography which has special significance for psychologists is that of Leonard (170). This book has been discussed as material for teaching by G. Allport (17) and as a clinical problem by Taylor and Culler (275).

In general, unsatisfactory though the case method may be, many writers feel that the concrete individual has eluded study by any other approach. In the future there will undoubtedly be attempts to standardize the case-study in some way which will reduce its dependence upon the uncontrolled artistry of the author. Its chief merit is that it can include a great deal of material, and that it can indicate something of the relations between the various factors which are excluded by the more static and objective methods. For it attacks both aspects of personality, the genotypical and the phenotypical, as distinguished by Lewin; it is both history and portrait.

(3) *Environmental and Sociological Studies.* There are innumerable investigations of environmental conditions which implicitly or explicitly are assumed to play their part in the formation of personality. Giese's (101) statistical study of the external factors surrounding 10,000 men of public life is an ambitious illustration. The effect of the home, including the attitude of parents, has been an especially popular field; cf. Blanchard (38), Foster (91), B. Glueck (105), Shaw (250), Smith (256), Taft (273), and Young (321).

The environment is, of course, a favorite stamping ground for sociologists whose interest to-day in personality is very lively. A plea for the study of personality through the medium of environing culture is made by Burgess (59, 60, 61); faith is placed in mores rather than in neurones. Shaw's ecological work on delinquency (249) is sometimes acclaimed as a model for the "situational" approach to personality. Now there is little in such studies that concerns the concrete *psychological* phenomenon which is the object of our interest. By making the cultural group the principal avenue, and by exploring the avenue rather than the destination, the sociologist is in reality diverting attention from personality to its mere cultural setting. G. Allport (18) has criticized this trend, and

Hankins (117), himself a sociologist, has pointed out that sociologists forget that the organism itself determines the direction, and supplies the energy for the shaping of personality. The situation merely releases one of several courses of development. On the misuse of the term "personality" in sociological writing, see the review of Young's book (325) in this number of the BULLETIN.

B. *Results for Theory.* (1) *Heredity.* If a general impression may be recorded, it seems that the tide has turned toward greater faith in the innate determination of traits. Nearly all the observational studies, cited above, agree that the foundations of personality (individual differences in respect to motility, prevailing mood, social responsiveness, etc.) are readily detected in very young children, in Zoepffel's investigation even as early as the twentieth day. Gesell's work (100) also stresses the unalterable nature of native temperament, and the rôle of maturation.

Literature on the inherited bases of personality is covered up to 1923 in the review of Peters (217), and instincts have been reviewed by C. Bühler (57). Considerable interest is shown by German investigators in the personality of animals; the field is well surveyed by Schwangart (245), while Burlingame (62) has summarized work on the inheritance of temperamental traits in animals. Kelley (146, 148) believes it possible to determine the relative proportions of nature and nurture in personality. May and Hartshorne (195) think that whatever arguments are valid for the native determination of sibling resemblance in intelligence apply as well to sibling resemblance in the complex factor of deceptive behavior.

(2) *Integration.* Among the theoretical problems connected with the genetic approach, none is more important than the nature of integration. Studies which trace integration from its lowlier manifestations up to the human personality than those of Child (69), Young (320), May (190), and Sherrington (254). The last of these authors seems to complete his basic theory of 1906 when he states in 1922, "the normal action of the mind is to make up from its components one unified personality."

Coghill (73) is critical of the concept of integration: "The development of behavior must be regarded not as a synthetic process, but as a process of analysis of a total, primarily integrated and constantly expanding pattern." Differentiation within a whole rather than binding of elements together is also the kernel of the Gestalt theories. Stern has said *dissociation* is a more valid law of personality than *association*.

Whatever the theory of the unification of personality may be, there is a marked tendency to use the concept of integration as representing normality, maturity and mental health (e.g., Burnham, 63). Künkel (167) considers progressive integration in personality as equivalent to the absorption of each single experience (*Erfahrung*) into adequate preexisting experience-systems (*Erlebnis*). Defining integration as the absence of frequent alternations of contrary traits in essentially similar situations, Brooks (52) regards adolescence as usually unintegrated. The chief agencies for producing integration Bernard (36) believes to be the social processes of suggestion and imitation.

Less enthusiasm is shown by MacCurdy (176), "With the perfection of reaction patterns achieved during advancing years, personality becomes better integrated, but a heavy price is paid; imagination fails and intellectual sterility ensues." Gates (99), sensing the same dilemma, meets it by distinguishing between integration and inflexibility; "personality may be well-integrated and yet flexible. The integrated, inflexible personality is one which is always the same." This view is much the same as Dewey's (77).

V. EXPERIMENTAL METHODS

Thorndike's fundamental axiom (280) that "Whatever exists, exists in some amount," is often quoted and widely respected. But its effect (or the effect of the quantitative type of outlook for which it stands) has been insidious in the study of personality. Our discussion so far has shown that the chief problems of personality are seldom amenable to quantitative treatment, so that most of the literature on measurement contributes little to the theory of the topic. That experimental approaches in recent years have far outgrown an adequate philosophy and theoretical background, especially in America, is obvious, however gratifying they may be as signs of an increasing interest in the vocational and applied psychology of personality. A general critique of testing methods and results is badly needed. Almost the only instances of such are May and Hartshorne's first annual summary (193) and W. I. and D. S. Thomas (278). Watson's book (300) and Young's articles (322, 323) are also useful. But these are already out of date. Here we can only touch on a few of the more important trends which do not usually fall within the scope of these articles or in May and Hartshorne's later non-critical surveys (194, 196).

First there seems to be an increasing dissatisfaction with the more artificial pencil and paper or laboratory methods, together with the realization that, while the test situation should be controlled, yet both situation and response should be as natural as possible (*cf.* Hartshorne and May's excellent criteria for testing, 120). Apparently the more strictly objective the approach, the less normal and spontaneous are the testee's reactions, and therefore the less significant the results. There has been too great a tendency to ascribe such poor results to lack of consistency and integration in the testees rather than to defects in the techniques (*cf.* Gilliland, 104). Bain (26), gives an analysis of the difficulties in ensuring correspondence between verbal responses to written tests and behavior in real life, while Johnson (144) argues that we are guilty of homeopathic magic in that we consider our test results to be *equivalent* to the actual psychological functions that we are attempting to measure, instead of merely "*equivocant*." The need for consideration of the subjective situation in testing, not merely the objective conditions, is emphasized by E. R. Hamilton (115) in a brilliant analysis of the theory of mental measurement (which applies equally to personality testing). Vernon (291) criticizes the more objective techniques from the same standpoint. Bronner and her associates (51) advise against mechanical testing and the basing of conclusions on specific numerical results, rather than taking into consideration all the exogenous and endogenous factors which influence the individual's responses.

Many investigators claim to reach results of greater predictive value by combining the clinical and the objective approaches. Beck (32) has demonstrated for the first time in this country the possibilities of the Rorschach ink-blot method (238, 239). Burt (66), Porteus (224), and Vernon (291, 292) find that qualitative deductions from performance test situations, in spite of the difficulties of validation, reveal much about personality. Viteles (295) and Anderson (21), in the industrial and vocational fields, regard tests and ratings as incapable of giving information about the personality as a whole. Such results need to be synthesized by a more subjective approach. The latter writer offers statistical proof of the superiority of a psychiatrist's guidance to that of an interviewer using standard tests. Young (324) pleads for the combination of the longitudinal or historico-genetic method with the cross-sectional studies.

Henning (129) has developed clever apparatus and instruments for bringing out individual differences. In general two or more subjects work together, and he has designed some 80 tests to disclose

which of them shows the greatest initiative, honesty, recklessness, tolerance, helpfulness, etc. His methods usually lead to rank-orders for a group of subjects, for which he claims a high reliability. Validation is accomplished by the group difference method. Melzter (197) distinguishes optimists from pessimists by individual differences in the tendency to forget unpleasant experiences or pleasant experiences.

A remarkable number of studies with children (similar to those mentioned in Section IV) have led to promising results when perfectly natural and spontaneous behavior was observed; certain significant aspects of this behavior being expressed indirectly in quantitative terms. This work has been validated by means of ratings, by the large individual differences that were recorded, or, best, by the internal consistency or reliability of these differences (*vide infra*). Typical studies are those of Marston (187) and Newcomb (207) on extroversion-introversion; Berne (37) on obedience, coöperativeness, etc.; Wagoner and Armstrong (296) on self-dependence, reliance and care in details; Ball (28) on emotional instability; Cushing (75) on perseveration; D. S. Thomas and associates (276) on talkativeness, laughter, social resistance, "self, social and material" activities. Thomas calls her new techniques "experimental sociology."

Since 1925 the situation with respect to *validation* has changed considerably, although May and Hartshorne foreshadowed many recent advances (193). One should mention first a new and fruitful method which is based on qualitative data and is akin to the German "interpretative" approach rather than to the usual quantitative correlational method. Hendrick (128) suggested that test results should be compared with case studies drawn up by experienced clinicians, whose personality diagnoses would clearly be superior to those of the average rater. Travis (283) employed this method, claiming 80 per cent agreement between his test findings and psychiatrists' descriptions. Gorham and Brotemarkle (109) compared case studies which were written by outside observers with similar studies based on the interpretation of certain test results, but were unable to express the degree of agreement numerically. Vernon (292) tried to fit or identify unnamed qualitative case studies to the personalities of his subjects, with fair success. Similar also are Hartshorne and May's "Guess Who" method (121), and the matching techniques of certain German investigators such as Arnheim (23) and Wolff (315).

include something of the "form-quality" of the total personality, is work, not with single traits or qualities, but with several traits simultaneously. Thus if two sets of tests or ratings provide two scores for each individual on a number of traits, then the order of such traits within the individual, according to one set of tests, can be statistically compared with the order according to the other set. Allen (8) and Flugel and Radclyffe (89) have applied this to Pressey X-O and an emotional questionnaire, Vernon (292) to tests of interests and to personality traits.

Although these methods are only in their infancy, it is possible that they will develop considerably in the future owing to the perennial difficulties of the usual correlational methods. The chief disadvantage of statistical treatment which involves reliability and validity coefficients, and the like, has been pointed out by Young (323), namely, that it is essentially dependent on the assumption that the variables or functions which are being measured are homogeneous, unidimensional and distributed according to the normal curve. This cannot but distort the actualities of human nature. A further criticism which applies to all types of testing and validation is voiced by Kelley (147) and May (192), who prove the vital importance of taking into account the heterogeneity of the groups which are tested. A correlation, between a test and ratings let us say, is meaningless unless we know something of the diversity of the population; external factors such as maturity, intelligence, race, age, sex, and cultural background may raise such a coefficient from a very low to a very high value. Kelley therefore discusses the most desirable degree of heterogeneity to be aimed at; Spearman (260) also gives an account of this and other pitfalls.

With these cautions we may consider the chief correlational methods. There has been a striking decline in the popularity of ratings now that it is realized that halo and other errors may falsify such estimates as much as objective test records are distorted by errors of observation. Hartshorne and May (121) show that tests will cover part of the "ground" (*i.e.*, of the quality that is being measured) and that ratings will cover part, but that the two do not necessarily overlap. Thus instead of regarding ratings as the ultimate standard of verification, they are the "reputation" of the ratees among the raters, which may be treated as one valuable type of approach, on a par with other more objective approaches.

Validation by differentiation of groups has been used to considerable effect in finding, for instance, how well tests will differ-

entiate delinquent from normal children (Cady, 67; Henning, 129), manic-depressives from dementia precox cases (Neymann and Kohlstedt, 208), salesmen from mechanics (Freyd, 95), prejudiced from fairminded (G. B. Watson, 299). But the most important development is what May and Hartshorne (193) called validation by sampling, now known as theoretical validation or internal consistency. Instead of trying to find one test for a particular trait, a battery of tests is employed, perhaps following in this way the accepted principles of intelligence testing. We may consider these subtests as measuring different aspects of some trait, but more often no such assumptions are made as to the psychological function in question. Hartshorne and May's character education studies are the chief example (120, 121, 122). Here the qualities to be measured are practically defined as the average of the results of an infinite number of tests. Any one test (or set of ratings) covers part of the ground and agrees to a certain extent, known as its theoretical validity, with the sum of an infinite number of other tests. Obviously the more tests we have, the nearer will our composite measure, based on the battery, approach to the ideal infinite number, and the more adequate our sample. Moreover, the more closely the components of the battery agree together, the higher is said to be their internal consistency and the higher will be their theoretical validity. Thus Hartshorne and May's nine tests of dishonest behavior intercorrelated, on the average, to $+.227$. When corrected by means of the Spearman-Brown prophecy formula, the reliability or consistency of the total battery was $+.725$. This figure represents the expected correlation with another battery of similar tests, and its square root, $.851$, is the expected correlation with an infinite number, *i.e.*, with the criterion. Now a corrected consistency of $+.90$ would give us a validity of $+.95$, which is the highest figure that we are ever likely to attain. By the application of the prophecy formula we can therefore find how far our tests go, that is, how near they approach to the desired $+.90$. To raise $+.227$ to $+.90$ would require stepping up 31 instead of 9 times; thus the battery should include 22 additional similar tests. Or in other words, Hartshorne and May's tests of deception cover $9/31$ of the total ground. Similar procedures were applied to persistent and coöperative behavior. The validity of any one subtest is then its correlation with the sum of the others in the battery, since the battery is the nearest we can get to the perfect standard of the infinite number. Similarly Vernon (292) applied some 15 hours of varied tests and found that 55 of the resulting sets

of scores could be grouped into nine separate composites. Each composite of five to eight different subtests "hung together" or showed a sufficiently high internal consistency to be used as a criterion or standard for some quality or trait. The average corrected consistency of these composites was $+.65$, so that their validity was $+.806$ (without resorting to attenuation corrections). Moreover, such composites as were theoretically valid did represent remarkably well the subjective idea of the traits in question, according to a clinical analysis of the personalities tested.

It seems probable that whenever, in the future, objective tests are to be used for practical purposes, this procedure will be adopted, rather than the old method of trying to find one test for one specific trait. Many previous investigators have approached the same principles without reaching the level to which Hartshorne and May have brought it. Heidbreder's (125) scale of extroversion-introversion was, perhaps, the first direct application of this device. She considered the degree to which each item in her scale predicted the composite result based on over fifty items. Later this method was extended to the "normal inferiority complex" (126). By reason of this "hanging-togetherness" of the component items, she regards introversion and inferiority as "empirically consistent traits." (May would say "theoretically valid," since he employs the term "empirical" to describe the older rating and group differentiation methods of validation). If the test or the composite battery is internally consistent, then it is considered as valid whether or not it agrees with other criteria such as ratings. Allport's A-S test (15) also depends on this criterion of self-correlation rather than on its accord with ratings. The 233 items of the Thurstones' neurotic inventory (282) are similarly found to be positively associated so that the authors consider its internal consistency as sufficient validation. One should point out, however, a certain fallacy in these applications of the device, namely, the fact that the testing technique introduces a constant error or halo, as it were, into each item, so that the resulting interagreement is to a degree spurious. Hence it is better, when possible, to try to measure the quality by a variety of different techniques, selecting those which intercorrelate suitably, in much the same way as in an intelligence test battery.

The theoretical corollaries of these and other results where batteries of tests were used will shortly be considered in detail. A far more elaborate procedure which might be profitably applied would be Spearman's (258) and Kelley's (147) techniques; for there is

clearly a close connection between this average of an infinite number of tests and the former's universal factors or functional unities. As a matter of fact, the only additional advantage for personality study of Spearman's tetrad difference method is that it enables one to establish whether such factors are independent of g . Kelley, however, stresses the importance of considering many possible traits or factors in conjunction with one another, so as to try to cover most of the personality, instead of dealing only with g and perseveration, or g and oscillation, etc. His pentad difference method was developed for this purpose. The Robinsons (237) also propose interesting statistical criteria for the grouping of abilities or factors.

A possible objection to these ideas is that personality traits are not likely to be so amenable to this statistical treatment as the comparatively simple and definite abilities with which statisticians have worked. There is a widespread fallacious belief that measurement of personality is in a state to-day analogous to that of intelligence testing twenty-five years ago. But according to present indications, it is most unlikely that sufficiently discrete, homogeneous variables will ever be established; traits are too fluid, too fundamentally and uniquely dependent on the "form-quality" of the total personality (cf. Allport, 11). Hence it is that such "orectic" general factors as have been claimed by Spearman's school, p (perseveration), o (oscillation), etc., turn out on closer consideration (according to Vernon's experiments, 292, and indeed according to Spearman's own results) to be relatively independent motor qualities which bear very little relation to the personality traits of introversion and emotionality to which they are assumed to correspond.

Cushing (75), however, established a trait of perseveration on the basis of *natural* test situations, using both the average intercorrelation or internal consistency and the tetrad difference techniques. Apart from Webb's well-known study (303), McDonough (177) seems to be the only other investigator to have followed out Spearman's or Kelley's suggestions. By this means she discovered general factors of will, cheerfulness, sociability and emotionality. But since she and Webb were dealing almost solely with correlations between ratings, it is impossible to say how far halo affected their figures; so that their results would seem to represent interrelations between the traits in the minds of the raters rather than in the personalities of the subjects. Nevertheless it is in this direction that some of the most fruitful developments would seem to lie. What is most needed is that tests as natural as Thomas', Marston's, Cushing's, etc., and as

thorough as Hartshorne and May's should be applied to every aspect of personality, and that these results should then be treated by some such method as Kelley's. We should then begin to know whether objective experimental methods really throw much light on the psychological nature and structure of personality.

VI [CONSISTENCY AND TRAIT]

The applications of experimental methods have brought to the fore the problem of consistency or spread of personality traits. Now it is unquestionably safe to say that personality, as it is ordinarily understood, depends upon some sort of consistency in behavior. A taxicab in which all sorts of aims, purposes and designs are carried to their destination and discharged, each one independent of the others, has no personality. A man is not like a taxicab. We can and constantly do predict correctly that his behavior to-morrow will fit in with what we know of his personality to-day. Hamilton (115) calls this "the principle of wider application," and recognizes that the amount of this wider application or spread is a problem of fundamental importance. Some psychologists admit more consistency, some less. A further difficulty, which we shall consider later, arises when we ask if the apparent consistency is really an attribute of the personality observed or merely of the observer's oversimplified social judgments.

The principal source of disagreement is known as the issue of specificity *vs.* generality. Common sense postulates the latter, experimental studies give results which are interpreted in either direction, often according to nothing more than the inclination of the author. The usual procedure is for an investigator to set out to examine some alleged "trait," by determining whether testees respond in a consistent fashion to several tests designed to measure this hypothetical trait. When the intercorrelations are low, the investigators have often declared the trait non-existent, and the testees' behavior to be merely specific responses to each individual test that is applied. Neither speed of decision nor confidence are general characteristics of a person's behavior, according to Trow (285, 286), nor is speed of work, according to Dowd (78). Hartmann disposes of accuracy (118); Guthrie (114), Hovey (135), and Weber and Maijgren (304) of introversion, Cowley of leadership (74), and Gates (98) of general maturity, except in so far as produced by the halo influences on the traits that were rated in his study. Working with the psychogalvanic reflex, Wechsler and Jones (305) find that

different types of emotional stimuli evoke comparatively unrelated deflections. By far the most important representatives of this outlook are Hartshorne and May, who not only obtain low intercorrelations between some 37 tests of various aspects of "good character," but show that even these figures are due largely to the influence of heterogeneous factors such as intelligence or classroom morale, rather than to consistency within the individual subjects (cf. Hartshorne, 119). They conclude (120) that, "honest and deceptive tendencies represent, not general traits, nor actions guided by general ideals, but specific habits learned in relation to specific situations which have made one or the other mode of response successful." Similar conclusions apply to persistent or coöperative behavior (121). Where the tests do agree it is said to be due to the presence of overlapping habits, since a direct relation is found between the number of objective elements common to the two test situations and the size of the correlation between the two sets of results. Again they find that different situations may elicit very different amounts of deceptive behavior in the same children, so that no homogeneous, organized and unified trait can be demonstrated.

It should be realized, however, that the average intercorrelation between many tests in such studies seldom approaches zero; more often it lies between about $+.25$ and $+.45$. Other investigators who obtain figures of much the same magnitude consider their results as evidence of generality rather than specificity. For example, Kennedy (150), measuring various simple and complex mental reactions, takes her average r of $+.45$ to prove "a tendency for a person who is quick in one task to be quick in another." Unlike Peak and Boring (215), she finds this "trait," which she calls "irritability," to be independent of intelligence. Vernon (292) confirms both these results. MacFarland (183) likewise finds that ability in respect to speed is an individual trait which is a fairly constant characteristic of a person's mental behavior, and Braun (47), who used tapping, lifting weights, walking, writing, copying, reading, and singing as tasks, discovers a consistent personal tempo among his subjects (average $r = +.44$). Hübel (136) shows that speed of association, movement and reaction is a single factor, but that it is independent of speed of fluctuation of attention.

Cushing (75) obtains an average r of $+.42$ between five tests of perseveration, defined as "the tendency of an individual to continue in a given mode of behavior where external pressure for continuance, in so far as is possible, has been reduced to a minimum."

Spearman's ρ , though differently conceived, is nevertheless claimed by him as a general factor. Spearman (259) interprets the fact that correlations between mental qualities are seldom either perfect or zero as refuting both the doctrine of "faculties" (i.e., complete generality) and Herbartianism (complete specificity). Heidbreder's, Thurstone's and Allport's results with respect to the internal consistency of their tests have already been noted.

Goodenough (106) making repeated observations in the manner of the "time sample" on young children, found reliabilities ranging from +.32 to +.87, the highest being evidence for consistency in leadership, general activity and dramatic play. W. I. Thomas (278), commenting on similar experiments in which one child was found to be leading or dominating in 95 per cent of play situations, another, pleading or subordinate in 95 per cent of situations, writes, "When we consider the great number of combinations from which these computations come, the consistency of behavior is amazing." Similar conclusions have been arrived at in respect to talkativeness. Working with nervous habits, Olson (213) finds that "a score in one category (oral, nasal, ocular, etc.) has some validity as a measure of habits in other categories." His median r is +.48. Marston (187) obtains good agreement among tests involving various social situations indicative of extroversion-introversion.

At what might be considered higher levels of personality, several investigators find that consistent *patterns* of traits are associated. For instance Schwegler (246) shows that introverts have slower word association responses, fewer contrast responses, less free production of inkblot interpretations, slower movements, less richness and variability of emotional output, etc. Oliver (212) obtained similar differentiations with many tests. Downey's grouping of Will-Temperament subtests according to extrovert and introvert types has already been mentioned, while Oates (210) finds empirically that many of these subtests fall into sthenic and asthenic emotionality groups. Jersild (143) discovers "desirable" traits to be associated. Analyses of radical and conservative individuals have been carried out by Moore (202), Vetter (294), and Allport (16). Freyd (95) established various interlocking characteristics of the socially-minded as opposed to the mechanically-minded; Lehmann and Anderson (169) dealt with social and solitary boys; Foster (92) with jealous children; Goodenough and Leahy (107) with only children, first born, etc. Such research leads, of course, to the conception of

types. For if associated traits are regularly discovered, the natural outcome is some statistical doctrine of type (*cf.* Section III, C).

Certain further generalizations arise out of these diverse experimental conclusions. Trow (286) suggested that some traits might be found to be more liable to yield consistent findings than others, or else that some persons might turn out to be more consistent than others, either in the various tests of one trait, or in tests of any trait. Since then, Hartshorne, May and Shuttleworth (122) have demonstrated large individual differences in the degree of what they call integration, *i.e.*, in consistency of objective scores on a large number of tests of honesty and the like. The actual average intercorrelation, they found, was due to 41 per cent of the children being more consistent than chance scores would allow; the others having negligible or even negative degrees of integration. Their measure of integration correlated highly with total honesty. This integration is explained as representing the amount of interpenetration of the specific habits, a view also put forward by Garrett (97), who considers a well-integrated personality to be "one in which the various habit systems show no marked disagreements." By means of statistical treatment of ratings for work, play, social and other patterns of habits, he attempted to devise indices for this internal harmony, but was not so successful as Shuttleworth.

Secondly it will be remembered that Hartshorne and May themselves showed us how to combine tests into suitable general factors, thereby obtaining measures of extremely high validity and predictive significance. This seems to be a justifiable statistical procedure, and many of the specificists would be surprised to find how promising are their low average intercorrelations when considered in this way. Surely it is largely due to the fact that they have isolated relatively meaningless or artificial bits of behavior, which could only be expected to bear little relation to other isolated bits, that has led to their view of human nature as consisting of such bits. The traits we talk about in everyday life are general types of behavior, and it is their artificial dismemberment into elemental test responses which inevitably produces these apparently disconnected and unintegrated results. A very good example is Newcomb's investigation at a boys' camp (207). By recording on a prearranged schedule the daily behavior of 51 delinquents, he was able to calculate the consistency for 26 items, also for assumed traits or groups of items, and for type (extrovert-introvert). The data are not easy to understand, but he seems to have found the greatest inconsistency in respect to

the single items (average $r = +.147$). In nine more general "traits," 45 of the 51 boys were consistent with respect to one or more, though only nine were consistent with respect to three or more. As regards type, these traits tended to be associated to an extent expressed by an average r of $+.374$. On statistical as well as on psychological grounds, this might be expected, and Newcomb seems unduly pessimistic. (For instance if he had correlated any one of his 26 items with the sum of the other 25, he would have obtained, on the average, a coefficient of about $+.63$, which we may call its validity with respect to type.) Newcomb's explanations of the apparent degree of specificity in his results are illuminating: first that his boys were young, suggestible and plastic; secondly that no two incidents recorded were ever precisely identical, that is to say that various unrecorded external and internal factors affected each particular response, so that, thirdly, it was the fact of trying to force these responses into *a priori* logical grooves which split up the natural and relatively organized wholes.

It is obvious that if an investigator prepares a schedule or scale according to his preconceptions concerning the nature of the trait to be investigated, then his results can at best only describe the individual's consistency with respect to this arbitrary criterion. Other experimental evidence tends to confirm this interpretation; for as a rule the greatest generality seems to appear, not when highly controlled techniques or the more artificial pencil and paper techniques are employed, but when the experimental situations are more natural so that the testees' true consistency and normal traits are able to emerge, undistorted.

We may turn then to the more theoretical discussions of the topic and of the nature of traits. Doctrines of generality are clearly favored by Kelley (147), Prince (227), Gilliland (104) and Allport (19). On the other hand, Hartshorne and May are by no means alone in their support of specificity. Folsom (90) puts the view crisply when he writes, personality is "a complex of millions of specific habits." Witty and Lehmann (314), impressed by the low correlations between tests of nominally the same trait, regard "character" as the result of specific conditionings. A doughty opponent of traits is Symonds (271). Considering Webster's definition of tact unpsychological, he has analyzed (272) "the ready power of appreciating and doing what is required by circumstance" into "a host of subtle habits." "If tact does to any extent, rest on a basis of habit, one ought to be able to test out these habits and catalogue them." In this

investigation he obtained 1,173 items which might be considered instances of "tactless" behavior (thereby, incidentally, appearing to analyze away the essence of tact): for example, belief that oneself is superior to others, chewing gum in public, and wearing soiled clothes. Thus the specificist would not ascribe the charming quality of tact *in toto* to even the most gracious hostess; her failure to commit specific offensive acts is for him the whole of the story.

For Symonds the unit of personality is the specific habit (270). Now this habit may be activated by any recurrent element in the original stimulus situation, even though this element occurs in a new context. Behavior which results from this process of redintegration may resemble a trait, but should more accurately be called a "confact." Thus, a boy "learns to take off a specific cap when coming in a specific door and in the presence of his mother. But in time he may take off his cap or hat or whatever he has on his head when entering any door, in any house whatsoever, whether or not in the presence of a person." Although subtle and receding stimuli evoke the response, yet the response itself does not show any generality, in this case "chivalry." This view illustrates the lengths to which the specificist will go, although the experimental findings, as described above, do not necessarily seem to support it.

What then is a trait of personality? In the review of 1927, Allport (13) attempted to collate existent views and to classify them under representative definitions. First the statistical approach, including both specificity and generality, stresses the view that variables which are to be accepted as traits should be, as far as possible, independent of other traits. Secondly the genetic approach implies that traits are general and biophysical in their nature, integrated from simple reaction patterns or conditioned reflexes. Thirdly the dynamic approach considers generic traits as systems of energy in themselves, and either as modified instincts, like McDougall's, or as self-sustaining *Gestalten*, or developed from the specific and mechanical adjustments of the infant (*cf.* Gillespie's genetic-dynamic outlook, 103). Typical of the latter view are the psychoanalysts' traits (see, for example, Abraham, 1), or the drives of the individual psychologist (*cf.* Adler, 4, 5, or Wexberg, 309). While these cannot be discussed in detail, yet one should note that the first approximately scientific evidence for the validation of some of Freud's characterological speculations has recently been presented by G. V. Hamilton (116).

To these three conceptions should be added the view, arising out

of the problem mentioned at the beginning of this section, namely, that traits are nominal fictions or artifacts. Weiss (306) regards traits as instances of "biosocial equivalence"; the observer takes ready-made social judgments and applies them to really unrelated acts. "Benevolence," far from being a general trait, is merely a symbol applied to many specific behaviors which, socially considered, comprise a single ideal. This view appeals also to the specificists such as May (190). Snobbishness, he states, is not so much something possessed by the individual as something inferred by society. As a stimulus the individual "touches off typical reaction patterns in his associates" and these patterns are called traits. Thorndike (281), Perrin and Klein (216), Leary (168), and Rexroad (232) would seem to be representative of this view which objects to regarding traits as existential, biophysical entities. A defense of the opposite view is given by G. Allport (19, 19a).

Leaving the controversial field of traits, the still higher unities in personality have been relatively neglected by experimentalists. The method of approach is very different, since it aims at discovering patterns of uniqueness rather than normal distributions or types. Regularities of co-variation and the comparison of individuals with one another vanishes here; instead the crucial and highest integrations of a single, isolated personality are sought. It may be instructive, as Köhler writes (160), to see a hundred hearts together, but functionally a person's heart has much more in common with his lungs than it has with the hearts of other individuals. The problem of unique consistency is like seeking the particular relations which exist within a single organism between the heart, lungs and vascular system.

The most suggestive experimental approaches to this problem are those of Arnheim (23) and Wolff (315, 316). The latter finds it possible to match voice and script of unknown authorship, so that they make a consistent picture, with a thumbnail description of the personality. His method is ingenious and consists in comparing the results obtained with chance. With physical features the harmony does not seem to be so marked.

It is, of course, the *Geisteswissenschaften* that have placed emphasis most squarely upon the "undivided personality" through the integrative concept of subjective values, but the writing of W. Stern (266) shows more clearly the disadvantages of analytical and test psychology. The case history as we have shown is an endeavor to escape these disadvantages, and psychoanalysis has

usually succeeded quite well in keeping the entire personality in view, Alexander (7) putting even additional weight upon the *total* personality. Gillespie (103) feels the need for an account of the organization and integration of the elemental factors elicited by the psychiatric diagnostician. The "style of life" is considered by Adler (5), and discovered to exist as early as the fourth or fifth year, and to consist in the strategies adopted by the individual for conquering his inferiority. The whole movement for "essentialism" in the school of *Gestaltbiographie*, discussed by Hook (134) may be taken as an illustration of the desire to depict the consistency of personality at its highest level.

On the other hand, Lewin (172), although a Gestalt psychologist, cautions us, "Just because we wish to place the problem of the whole at the front, we shall have to beware the tendency to make the wholes as spacious and inclusive as possible." There are systems within personality which are firm and unified, but the entire personality does not necessarily comprise a single Gestalt. Ichheiser (137) and Downey (81) treat the causes and consequences of overestimating the unity of personality.

Here we are trespassing on psychologically a distinct problem—*how we know people*. This review has dealt almost entirely with personality in the objective sense, that is to say, with the actual nature of personality as approached by experiment and by theory. The important problems of the perception and understanding of personality the writers hope to present in a later review.

The present survey has demonstrated that there is a marked increase of interest in the field; that most of the present work is in line with standard psychological research, simply extending and applying familiar methods; that some is inspired by the cultural and ethical sciences; and that a few psychologists seem to be striving for the unification of these approaches. Until recently psychoanalysis was the only system that held personality as a central concept, but it is evident that rival theories are in the making. Even though the formulation of really adequate and consistent theories of personality is bound to lag behind special research, this research is now so flourishing that the outlook for a future systematic psychology of personality is bright indeed.

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SPECIAL REVIEWS

KIMBALL YOUNG. *Social Psychology*. New York: Knopf, 1930.
Pp. xiv+674.

The content of text-books in social psychology is not standardized, and their systematic positions naturally agree no better than do systematic positions in general psychology. This condition of immaturity in the science has decided Professor Young to design his new text in a fashion that is "not highly theoretical," but descriptive and panoramic. What there is of systematic formulation in the book is eclectic. The author gives his explanations of social behavior at times in terms of prepotent reflexes, conditioning, attitudes, values, and images, and at times in terms of compensation, projection, identification, but most frequently and most emphatically of all, in terms of cultural patterns.

Since the work does not pretend to advance the basic theory of motivation and learning (the process of socialization) upon which social psychology rests, it would be unfair to criticize its lack of thoroughness or cohesion in respect to these explanatory concepts; for example, to point to its glancing attack on suggestion and imitation, or to its facile use of the conditioned reflex. The work seems rather to insist upon, and to illustrate, the rôle of the social environment in framing the mental life of the individual. Some of the most successful chapters deal with race prejudice, neighborhoods, occupational groups, and newspapers. Throughout there is the theme of the potent legend or myth, a favorite theme in social philosophy since the war. With a keen eye for illustrative material, Professor Young has made his argument both interesting and persuasive. His conception of social psychology is a broad one, but his material, as was the case in his *Source Book*, is so well chosen and so ably presented, that even when expanded, the field of social psychology seems in his hands to take on enhanced respectability and authenticity.

I have only one quarrel with the book, and that concerns its indiscriminating use of the term "personality." Personality, like Mesopotamia, is a blessed word; it induces in both the writer and in the reader a sweet sense of stability, security, and modernity. But as the preceding article in this number of the BULLETIN has shown, personality is a not altogether unambiguous concept. In fairness to the psychologists who are struggling to establish its scientific standing it should not be employed merely to round out a sentence gracefully or to stifle a yawn.

Approximately half of the 674 pages in the book are ordered under captions containing the word "personality." The entire discussion of language, institutions, and prejudice, for example, appears under such headings as "Personality and Secondary Groups" or "Personality and Subjective Patterns." A chapter on "Crowd Behavior and Personality" contains nothing that concerns personality proper, but rather an account of certain modifications of the behavior of *all* men in crowds and of the status of *persons* in crowds. Now, personality is not a synonym for individual or for person. An individual is an agglomeration of protoplasm, and a person is primarily a John Doe, who has legal and social standing. Personality, on the other hand, for the psychologist is freighted with uniqueness. Personalities should not be regarded as pawns on the sociological chess-board, restricted by certain ancient rules (cultural patterns) and colored black or white depending upon the interests and prejudices of their particular in-group. In reality a personality, though usually living in a social environment, reflects so many influences, non-social as well as social, that a cultural science cannot deal with it adequately. Personality is a *psychological* organization under cultural, physical, bacteriological, and hereditary influences.

The book opens with the statement that "Social psychology deals with the study of personality as it develops in relation to social environment." On page 201 personality is defined as "the sum total of images, ideas, attitudes, and habits of the individual organized in terms of social participation. Personality, therefore, is an outgrowth of the conditioning of the individual to the personal-social and cultural environment." It is not at all clear that the components of personality must be organized "in terms of social participation" or that personality is an outgrowth merely of the social environment. There are countless interactions between the individual and infra-social nature which both form and express personality. If it cannot fairly be said that personality is exclusively a social phenomenon, neither can it be held that social psychology is identical with the study of personality in its social environment. Many of the problems of social psychology concern *universal* alterations of behavior, motivation common to *all* men, or individual differences in respect to some mental process abstracted from personality. Language is certainly not basically a problem of personality.

Sociologists and biologists in recent years have written much on the distinction between individual and person, and some of this writing Professor Young faithfully records (237f.). A further distinction should be drawn, and observed, between these two con-

cepts and personality. Excepting for the rare occasions on which the peculiar formation of concrete individuality (personality) is the object of their study, sociologists might better employ the concept person or the old favorite, *socius*. It is the social man or the man with status that interests them, and not the unique individual; it is the typical mentality of neighborhoods, delinquents, voters, with which they work, and not personality.

If these considerations are correct, it is fair to estimate that Professor Young employs the concept of personality in its psychological sense through perhaps one-third of his book; in another third "person" would better have rendered his meaning; and for the remainder, for example in connection with language or myth, neither concept is needed.

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K. D. HAR. *Social Laws*. Chapel Hill: University of North Carolina Press, 1930. Pp. 252.

To anyone interested in the evolution, the rise and fall, the interdependence, or the validity of the generalizations which have been made to account for social processes, Mr. Har's book will be valuable. The book is "an attempt to discover whether there are any valid scientific laws in social phenomena to justify the claim of the various social sciences to the title of positive sciences" (3). After a classification and discussion of some 168 social "laws" and propositions, we are better able to understand the preliminary statement that "if there are any universally valid laws in social phenomena, all the social laws which circulate in one guise or another should be unified on some one fundamental basis. Such a fundamental basis is, to my mind, social psychology" (6). The book has, therefore, a distinctly heuristic appeal to social psychologists.

In order to have some systematic terminology and to avoid the frequent pitfalls of social scientists, chapter II on *The Ideals for Scientific Social Laws* is largely definitive. A scientific social law is conceived as "a description of an invariant pattern of social phenomena, if there be any such invariant patterns, explicable by means of a generally accepted theory of social causation which in turn must be explicable by means of a plausible hypothesis concerning human nature and social relations, thus making the conceptual unification of social phenomena complete" (20). Although he resolves ultimate causal analysis into psychological laws, the author recognizes the need of a pluralistic and co-operative approach of the various social sciences. Psychology may provide political scientists, economists, and anthropologists with a more sound theoretical background

and these may in turn aid psychology by studies of environment and institutional development; even ethics and religion may be contributory.

In chapter III all those laws classed as *apriorisms* and *presuppositions* are discussed. Although such formulations are methodologically necessary and valuable and may lead to a discovery of real social laws, there is the danger that such "laws" will be considered causal. This has been the error of Spencer, Cheyney, Ward, Giddings and others. The same criticism applies to those who have formulated teleological laws (chapter IV) and believed them to be natural "in the sense of being consonant with the imminent principles in the universe" (92). Examples here are the laws of social aim, survival and progress as stated by Blackmar and Gillin; Giddings' "choice of ideals"; Cheyney's "democracy," and "free consent."

Chapter V deals with *statistical laws*; more particularly those of Spencer, Dumont, Malthus, Engels, Streightoff, and Galton are discussed. In all statistical procedure, Mr. Har finds inherent difficulties when the method is applied to social phenomena. Since correlation is not causal relation, since averages may represent an imaginary figure, and since probability is not certainty, this method—although one of the most useful if we are aware of its limitations—is inadequate.

A detailed and competent survey of *near-causal laws* is contained in chapters VI and VII. In the former chapter those laws "based on inferences from the order of historical sequences and those based on inferences from biological and mechanistic analogies" (115) are considered. Here we find Comte's law of the three stages, his laws based on historical sequences and his law of diffusion as well as Spencer's conception of the social organism and Ward's biological metaphors. The author criticizes these laws on the grounds that similarities may be external but not necessarily functional or causal, that many such analogies are contradicted by inductive anthropological studies, and that the reasoning employed is often vague and epistemologically circular.

The criticism of near-causal laws continues in chapter VII with those laws "based on psychological analysis with sympathy as their central principle" (131). Examples here are Giddings' "nosciousness of kind" and all those laws derived from that conception, Ross' "laws of exploitation" and his "laws of social control." Next he takes up those laws "based on psychological analyses with imitation as their central principle" (168) and discusses Tarde, Baldwin,

Cooley, McDougall, Faris, Giddings, and Simons. Analyzing these "laws" Har shows that they seldom go beyond the boundaries of superficial observation, that their explanations are often tautological or include incomprehensible phrases, and that many of the statements are circular. Vividness is often gained at the expense of accuracy.

In the next chapter on *Dialectical Laws as Syntheses*, the author gives an excellent account of Hegel's idealistic version and of Marx's materialistic version of dialectical law and follows them with the dialectical social laws of Ross, Hocking, Giddings, and Cheyney. The reader of *Psychologies of 1930* would find the criticism here applicable to Professor Kornilov's dialectic materialism. In general, Mr. Har considers dialectical law to be a view of life and not a positive law. In it there is a purely logical construction unsupported by facts. The value of such laws would seem to be their mystic spaciousness "as a preliminary step in the search for social laws" (211).

As a means of preserving self-respect and avoiding illusions, Mr. Har proposes in chapter IX that we use the term "social art" as a more accurate designation for "social science." A social art might then be defined as "skill or wisdom which is useful to the appreciation of human values, to the improvement of human relations and the accompanying conditions of living" (212). Among such social arts he lists that of self-annihilation, transvaluation, domination, explosion, separation, and interpenetration. The last would seem to be the most successful as a process of "integrating several conflicting interests, and fulfilling them in their organic unity" (225). As a working basis for these social arts we have all those "social laws" gathered and classified in the previous chapters.

Thus we are shown the limitations of the so-called social laws and come to the conclusion that "the name sociology at present is a mere symbol standing for such an Herculean achievement of the future. As a science, it still remains in the stage of definitive concepts and artistic discussion, without either an adequate technique for study or a sufficient accumulation of data" (51 f.). Since "the ultimate problem to which the study of all social problems can be reduced is the study of man himself" (244), the author believes that causal psychology is the "best available avenue of approach for those who aspire to make sociology an exact positive science" (244). But Mr. Har is not blind to the homeopathic doses which social psychology has injected into the sociological system. Its success in the future will "be measured by its ability to coöperate with the other special social sciences" (244).

HADLEY CANTRIL.

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NOTES AND NEWS

THE death is announced of Dr. Hendrik Zwaardemaker, professor emeritus of physiology at Utrecht. Professor Zwaardemaker died on September 19 at the age of seventy-three. He was best known to psychologists for his work on the sense of smell.

DR. KAI JENSEN of the Department of Psychology at Ohio State University has been appointed research associate for the investigations of the newborn infant.

THE Massachusetts Society for Mental Hygiene announces that through the generosity of the Godfrey M. Hyams Trust it will begin the publication early in January of a quarterly to be called "Understanding the Child." This new magazine will be distributed free to every teacher in the public schools of Massachusetts. Its purpose is to bring to them a knowledge of the principles and practices of mental hygiene. The editorial direction of this new magazine has been placed in an Editorial Board consisting of J. Mace Andress, Editor, and Dr. E. Stanley Abbot and Dr. Henry B. Elkind, Associate Editors. There will be a Consulting Editorial Board of fifteen members, composed of experts in the fields of mental hygiene and education, such as William H. Burnham, C. Macfie Campbell, Augusta F. Bronner, Payson Smith, Lawrence A. Averill and others.

THE Seventh International Conference of Industrial Psychology (Technopsychology, *Psychotechnique*), will be held in 1931 in Moscow, under the presidency of Dr. I. Spielrein of the Institute for the Protection of Labor. While the date has not been definitely determined, it will probably begin on September 15. Industrial psychologists who wish further information regarding this international conference may correspond with American members of the Council, W. V. Bingham, 29 West 39th Street, New York, and M. S. Viteles, University of Pennsylvania, Philadelphia.

By recent action of the National Institute of Psychology Professor R. S. Woodworth of Columbia University was transferred to Honorary Membership. Professor Edward C. Tolman of the University of California was elected to Active Membership.

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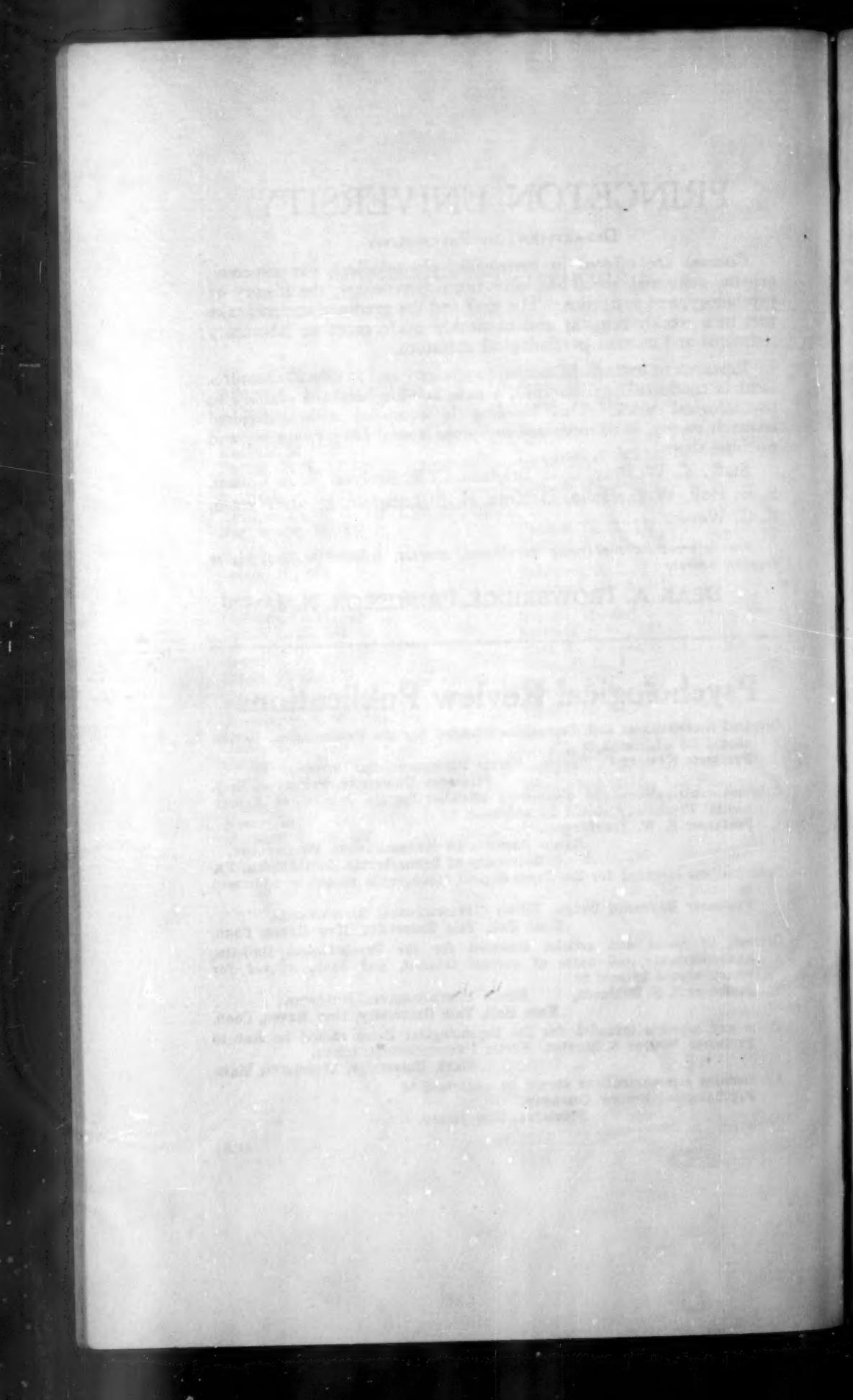
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